

Appl. No. 09/679,796  
Reply to Office action of 02/03/2004

### **REMARKS**

Reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 1-19 are pending in this case. Claim 1 is amended herein.

The Examiner rejected claims 1-7 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is amended to overcome the rejection by specifying that a an area for a semiconductor wafer is between the first and second aperature arrays. Accordingly, Applicant respectfully requests that the rejection now be withdrawn.

The Examiner rejected claims 1-15, 17 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Liu (U.S. Patent 5,966,424) in view of Sullivan et al. (U.S. Patent 6,414,752).

Applicant respectfully submits that claim 1 is patentable over Liu in view of Sullivan as there is no disclosure or suggestion in the references of a system for imaging a semiconductor wafer that comprises an x-ray source and first and second aperature arrays with aligned openings. Liu teaches an X-ray system for imaging a patient in which radiation is passed through a radiation filter to a flat panel imager wherein aperatures in the filter and imager are aligned. The presence of the filter allows for multiple exposures to be taken without increasing the radiation dose to the patient. Liu does not disclose or suggest a system for imaging a semiconductor wafer. Sullivan teaches a system for imaging both sides of a semiconductor wafer. However, the combine teachings of Liu and Sullivan would not disclose or suggest the claimed invention to one of ordinary skill in the art of semiconductor manufacturing. There is no suggestion for modifying Liu from a system for imaging a patient to a system for

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imaging a semiconductor wafer. Liu teaches the motivation for using the radiation filter as allowing multiple exposures of a patient without increasing the radiation dose to the patient. There is no suggestion that this motivation applies to a semiconductor wafer. Accordingly, Applicant respectfully submits that claim 1 and the claims dependent thereon are patentable over the references.

Applicant respectfully submits that claim 8 is patentable over Liu in view of Sullivan as there is no disclosure or suggestion in the references of a method for imaging a semiconductor wafer which comprises the step of placing a semiconductor wafer between first and second aperture arrays, each of the first and second aperture arrays having a plurality of openings therethrough, through which x-ray energy may be transmitted, the openings of the second aperture array being aligned with openings in the first aperture array. As discussed above, Liu teaches a system for taking x-ray images of a patient. Liu does not disclose or suggest a method for imaging a semiconductor wafer. Sullivan teaches a method for imaging two sides of a semiconductor wafer the step of placing a semiconductor wafer between first and second aperture arrays, each of the first and second aperture arrays having a plurality of openings therethrough, through which x-ray energy may be transmitted, the openings of the second aperture array being aligned with openings in the first aperture array. The combine teachings of Liu and Sullivan would not disclose or suggest the claimed invention to one of ordinary skill in the art of semiconductor manufacturing. There is no suggestion for modifying Liu from a system for imaging a patient to a method for imaging a semiconductor wafer. Liu teaches the motivation for using the radiation filter as allowing multiple exposures of a patient without increasing the radiation dose to the patient. There is no suggestion that this motivation applies to a semiconductor wafer. Accordingly, Applicant respectfully submits that claim 8 and the claims dependent thereon are patentable over the references.

The other references cited by the Examiner have been reviewed, but are not felt to come within the scope of the claims as amended.

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In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1-19. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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